

Farm to School Food Safety

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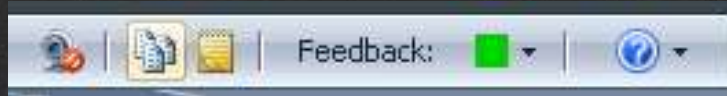


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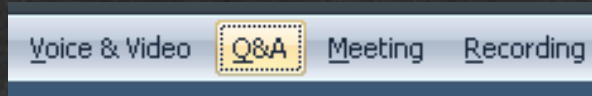


Housekeeping

- To download handouts:



- To make a comment or ask a question:



- » Type your question or comment using the Q&A tab
- » Ask your question or comment on the phone at the end of the webinar by pressing *1
- Please turn off your computer microphone, all audio will be through the phone.
- The webinar will be recorded and available on the USDA Farm to School website: <http://www.fns.usda.gov/farmentoschool/webinars>

Poll: Who is on the line?



Food Safety & HACCP in School Nutrition Programs



Paola Paez, PhD,
Research Associate Professor
Kansas State University



Ellen Thomas
Research Assistant Professor
Kansas State University

Objectives:

1. Provide science-based solutions to problems impacting food safety in child nutrition programs across the United States.
2. Conduct applied studies to resolve food safety issues in schools and other child nutrition programs and convey those findings in a way that facilitates the transfer of knowledge to school food service directors and program operators, as well as scientists, policy makers, educators, and practitioners

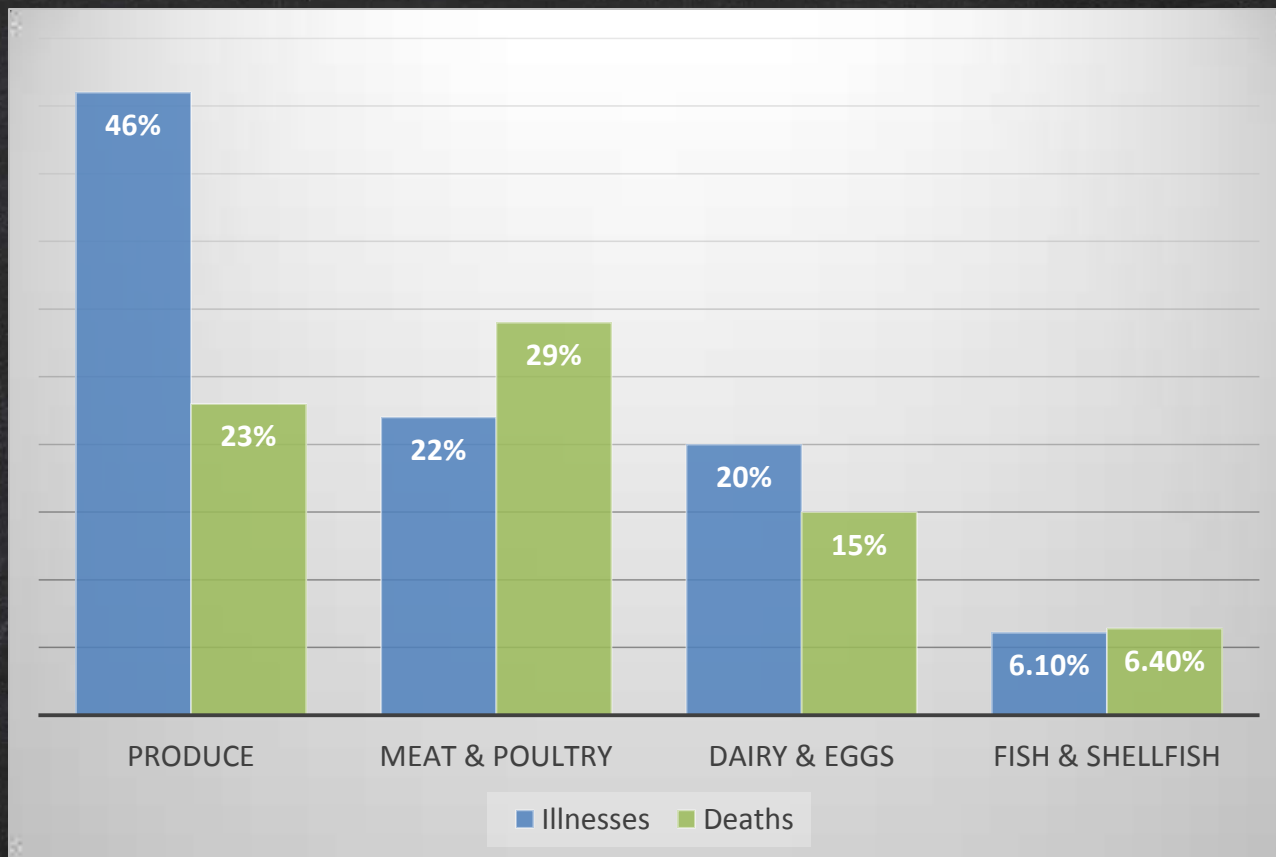
Outline

- Food Safety in Child Nutrition Programs
 - » Foodborne illnesses
 - » Foods involved in outbreaks
 - » Outbreaks in schools
- Child Nutrition Programs and the Food Safety Plan

The Burden of Illness

- CDC estimates that foodborne diseases annually result in:
 - » 48 million illnesses
 - » 128,000 hospitalizations
 - » 3,000 deaths
- » <http://www.cdc.gov/foodborneburden/2011-foodborne-estimates.html>

Contribution of Different Food Commodities to Illness & Death by Number of People (1998-2008)



Foods Involved in Outbreaks

- **Why animal products?**
 - » High in nutrients
 - » High water activity
 - » Provide an excellent “food” for microorganisms
 - » Intestinal tract is a source of pathogens (contamination)

Examples of Outbreaks

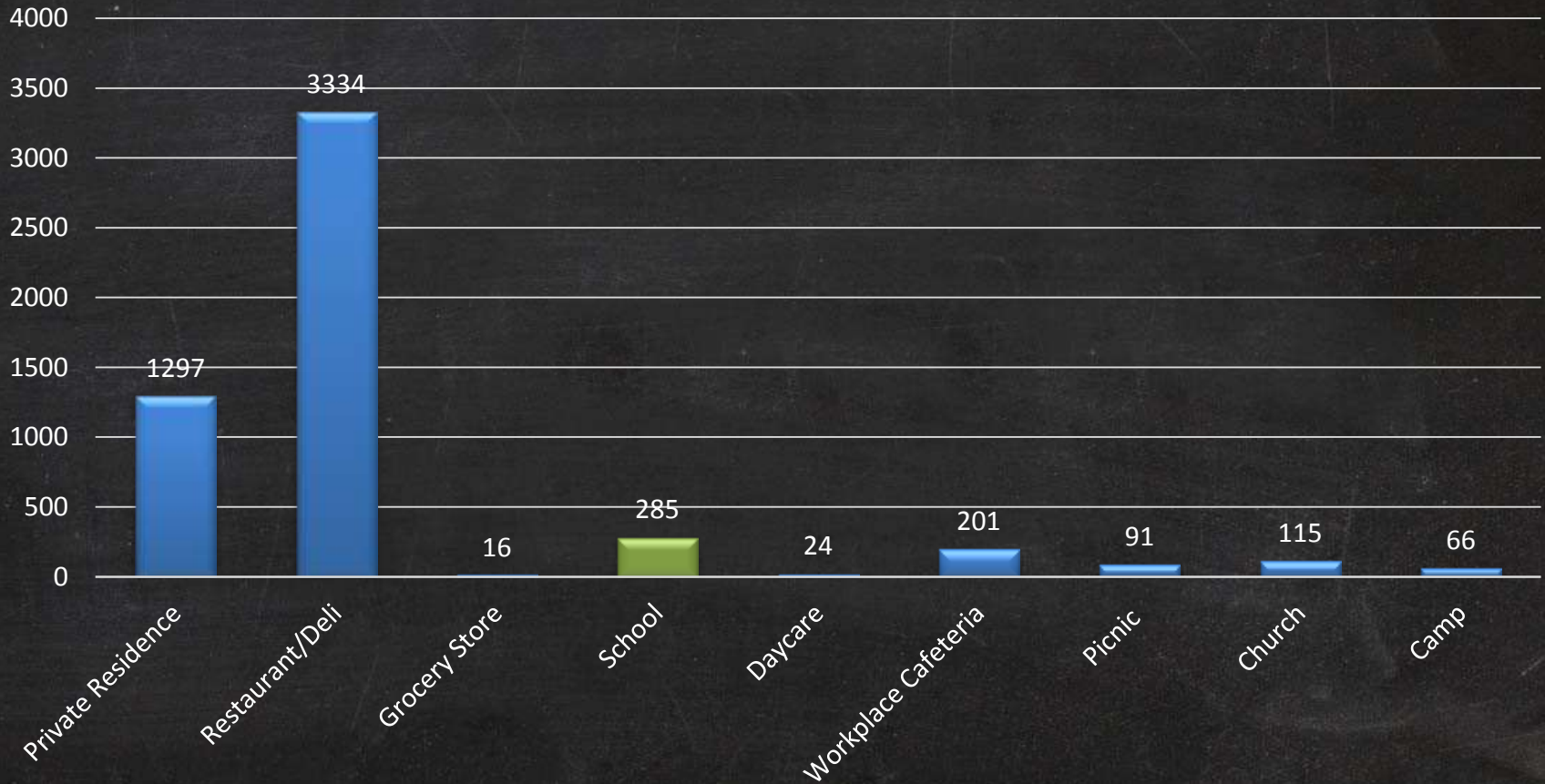
- **Caramel Apples Outbreak, 2014**
 - » 35 illnesses, 34 hospitalized due to *Listeria*
- **Mixed Frozen Berries, 2013**
 - » 162 illnesses, 71 hospitalizations due to Hepatitis A
- **Chicken Outbreak, 2013**
 - » 634 illnesses, 38% of ill persons were hospitalized due to *Salmonella*
- **Cantaloupe Outbreak, 2012**
 - » 261 illnesses, 94 hospitalizations due to *Salmonella*
- **Peanut Butter outbreak of 2008-2009**
 - » 714 illnesses, over 166 hospitalized

Outbreaks in Schools



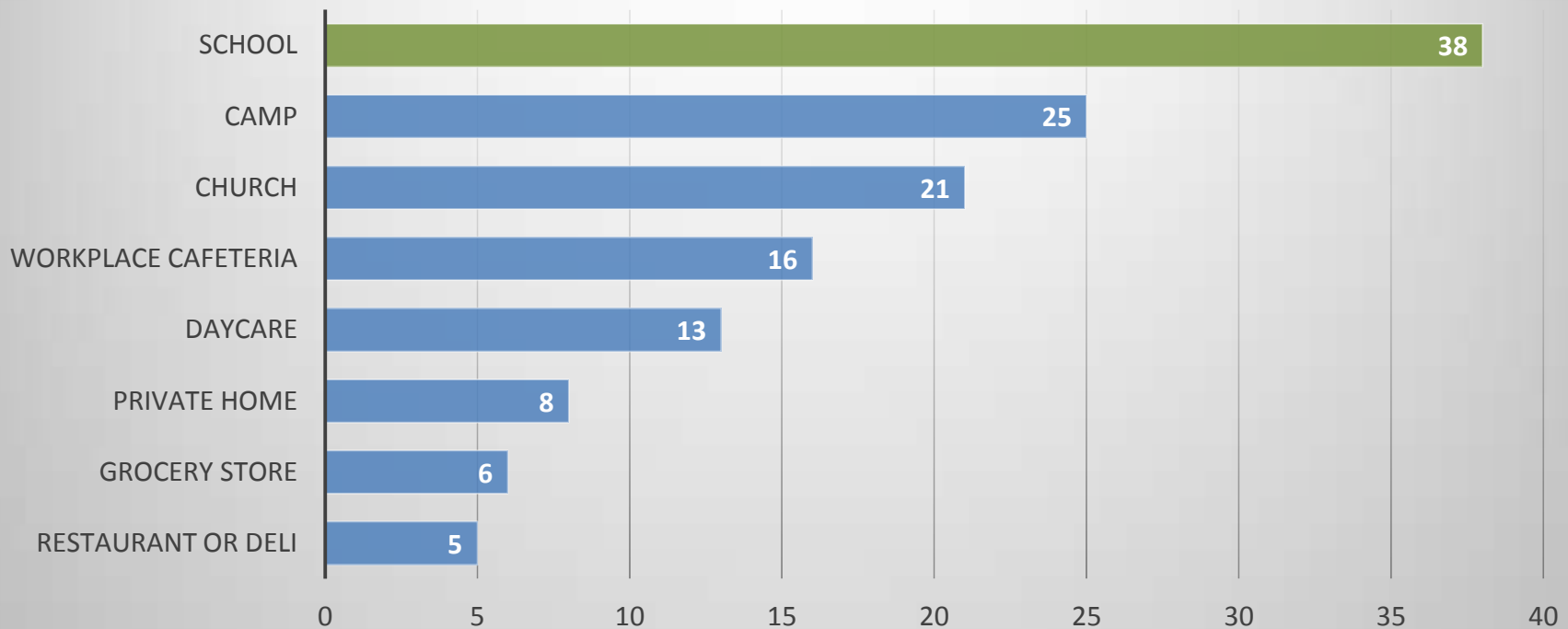
Outbreaks in Schools

Reported Outbreaks



Outbreaks in Schools

**Average Number of Illness per Outbreak by Place
Where Food was Prepared**



Child Nutrition Programs and the Food Safety Plan based on HACCP principles



Food Safety Plan in CNP

The goal



Prevent foodborne illness
and serve safe foods to our kids

Food Safety Plan in CNP

- Child Nutrition Programs (CNP) provide over 10 million children with breakfast and 31 million with lunch daily.
- Food safety is a major concern.
- All Child Nutrition Programs are required by federal law to have a Food Safety Plan based on HACCP.
- Schools that do not meet this mandate are in jeopardy of losing their federal funds.
- <http://www.fns.usda.gov/cnd/lunch/Downloadable/HACCPGuidance.pdf>

Food Safety Plan in CNP cont.

- Food is handled by many different people/companies before it reaches the kitchen.
- Farm to school programs: bring local or regionally produced foods into school cafeterias, school gardening, farm visits, and culinary classes.

With HACCP You Can...

- Identify foods and procedures most likely to cause foodborne illness.
 - » Example: Hamburger patty may be contaminated with *E. coli*
- Develop procedures to reduce the risk of an outbreak
 - » Example: Cook the patty to 155°F to kill bacteria

With HACCP You Can...

- Monitor procedures that keep the food safe
 - » Example: Hold patty above 140°F to minimize bacterial growth
- Verify that the food served has been handled properly at each step
 - » Example: Document food cooking and holding temperatures
- HACCP is an ongoing process.

Implementation of Food Safety Plan in CNP

- National sample of 34 school districts in eight states
- Data collected on site in each school's food production facility
- Of the 34 schools, 33 had a food safety plan based on HACCP principles.

Key Practices

- Food Safety Plans should be customized to meet the unique production and service need of each School Nutrition Program.
- Each CNP should have a copy of the Food Safety Plan on site with all documents easily accessible for employees. Managers should know about the Food Safety Plan

Key Practices

- A master sanitation schedule should be posted and used by schools.
- SOPs for preventing cross contamination, washing fruits and vegetables, date marking, and food recall should be developed. SOPs should include signatures and the date.
- Records of corrective actions should be kept in each operation. Verification that the corrective step resolves the problem is necessary.

Just Remember...

- School Nutrition Programs are required to have a Food Safety Plan based on HACCP principles.
- HACCP offers a preventative approach to food safety.
- These procedures help us provide safe meals to our kids.

More Information

- Visit the Center's website
- www.cnsafefood@k-state.edu
- Social Media
 - » Facebook
 - » LinkedIn
 - » [Twitter@cnsafefood](https://twitter.com/cnsafefood)



Food Safety in the School Garden



Caroline Stover
FoodCorps
North Carolina State Fellow

Food Safety in the School Garden

Contaminant Introduction

Risk Management

Good Agricultural Practices (GAP)

Involving students

For more information...

growingsafergardens.com

North Carolina State University and North
Carolina Cooperative Extension



Contaminant Introduction

- Site Conditions
 - Compost
 - Worker (Student)
- Health and Hygiene
- Your Water source
 - Harvesting
 - Wildlife



Site Conditions

- History of Selected Site
- Soil Test
- Wildlife
- Likelihood of Flooding
- Runoff from parking lots, surrounding facilities



Compost

- Location
 - » Far from garden
 - » Downhill
 - » Creating drainage barriers
- Treatment: destroying pathogens
 - » 130° F for 5 days
- Manure Use
 - » Composted for 120 Days
- Involve Students!



Worker Health & Hygiene

- Workers = Students, Volunteers, Teachers, All Visitors
- Hand washing: Most important food safety practice
- Clean Tools
- Clean Clothes
- Gloves



DIY Hand Washing Stations



Water Sources Pre- and Post-Harvest



Harvesting

- Clean Hands!
- Gloves are an alternative, but...
- Harvest Tools
- Harvest Containers



Wildlife Management



GAP Certifying your School Garden

- Documenting how you keep your garden safe.
- Third-party audit
- Involving high school students
 - » Record Keeping
 - » Participating in the audit



Keeping Salad Bars Safe in Schools



Francetta A. Stivender-Muhammad
School Nutrition Coordinator
Douglas County School System GA

Food Safety: Salad Bars

Once a school system has decided to incorporate a salad bar concept into its program they will need to develop an action plan that will produce a successful outcome for the safety of its products; this tool should increase its students ability to enhance their intake of fresh fruits and vegetables within a safe venue.



Food Safety: Salad Bars

The following steps should provide a strong foundation for their plan:

- ✓ The first step is the development of a HACCP plan that deal directly with the use of salad bars; this process should be done with the assistance of the local and or state health department.
- ✓ The next step is to build a comprehensive action plan with the aforementioned as the foundation coupled with the various levels of training to be performed along with a promotional timeline that will be used to rollout the program.
- ✓ Finally, the plan should have a built in timelines for the effectiveness of the program to be assessed and adjusted.

Food Safety: Salad Bars

All Salad Bars are not created equally, when contemplating the implementation of Salad Bars within a school system a great deal of thought has to be given to how to keep food safe and prevent cross contamination issues.



Food Safety: Salad Bars

The plan should be developed based upon the following questions:

1. What are the grade levels to be served?
2. What equipment will be needed to effectively operate?
3. What vendors will be selected?
4. What type of training will be needed?



Food Safety: Salad Bars

➤ What are the grade levels to be served?

The needs of students in K-5 and those in 6-12th grade vary because of their ability to reach the items on the salad bar. When planning to start a salad bar the district should ensure that the equipment purchased supports that grade level being serviced.

➤ What equipment will be needed to effectively operate?

In addition to the actual salad bar unit the team should procure serving utensils that supports portion control and is user friendly for that particular grade level. The unit should have a designated sink for the preparation of all fruits and vegetables; it should be labeled stating for “Fruit and Vegetables Only”.

Food Safety: Salad Bars

➤ What vendors will be selected?

The selection of vendors should include the district's ability to assess the company's HACCP plan and who they purchase their inventory from.

➤ What type of training will be needed?

There will be a need to train the food service staff as well as students and school staff; the training on all levels should be developed to support the needs of each group.

Food Safety: Salad Bars

➤ STEP I: Create HACCP Plan

By including the assistance of the local and or state health department the school system will increase the effectiveness of its plan and ensure that it is providing the safest environment possible.

➤ STEP II: Build a Comprehensive Action Plan

The Comprehensive plan will include the school's HACCP plan, the SOP's, the training timeline for foodservice and school staff. A promotional timeline will also be included to support the program's rollout.

➤ STEP III: Rollout the Program

After all steps have been completed the program can be implemented; the plan should be assessed in a timeframe that allow for adjustments to the plan in real time.



Food Safety: Salad Bars

- The utilization of a comprehensive plan that supports all of the needs of the program will support a successful outcome for the school system and its students.
- Education on the safe use of the salad bar program on all levels will support a successful rollout of the program; it will include the education and training for all involved. It will include sending communication home to parents for them to work with the students on salad bar etiquettes and the need to wash their hands.

Food Safety: Salad Bars

Planning, Education,
Training,
Implementation and
Follow Up are the
keys to providing a
safe environment for
the students,
teachers and staff!



Upcoming Webinar on March 19th: Marketing Your Farm to School Program



Resources

USDA Farm to School Resource Webpage

[Http://www.fns.usda.gov/farmentoschool/farm-school-resources#Food%20Safety](http://www.fns.usda.gov/farmentoschool/farm-school-resources#Food%20Safety)

NFSMI Food Safety & School Gardens guide

<http://www.nfsmi.org/documentlibraryfiles/PDF/20150210040033.pdf>

The Center of Excellence for Food Safety Research in Child Nutrition Programs

<http://cnsafefood.k-state.edu/>

University Of Minnesota Extension

<http://www.extension.umn.edu/food/food-safety/food-service-industry/regulations/salad-bars/>

Virginia Cooperative Extension

<http://www.pubs.ext.vt.edu/author/b/boyer-renee-res.html>

U.S. Food and Drug Administration

<http://www.fda.gov/Food/GuidanceRegulation/default.htm>



Thank You!

Questions?

To Receive your SNA CEU
certificate email
Robert.gorman@fns.usda.gov

